

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	958	800/8.ccls.	US-PGPUB; USPAT	OR	OFF	2007/09/26 12:37
S2	0	S1 and (mycoplasma same lipopeptide)	US-PGPUB; USPAT	OR	OFF	2007/09/26 12:37
S3	0	S1 and (mycoplasma same lipoprotein)	US-PGPUB; USPAT	OR	OFF	2007/09/26 12:37
S4	0	S1 and tlr6	US-PGPUB; USPAT	OR	OFF	2007/09/26 12:37
S5	80	tlr6	US-PGPUB; USPAT	OR	OFF	2007/03/10 08:17
S6	18	tlr6 and mycoplasma	US-PGPUB; USPAT	OR	OFF	2007/03/10 08:18
S7	0	tlr6 and 800/3.ccls.	US-PGPUB; USPAT	OR	OFF	2005/09/26 09:30
S8	1957	800/8.ccls. or 800/18.ccls.	US-PGPUB; USPAT; DERWENT	OR	OFF	2005/11/16 07:51
S9	986	800/8.ccls.	US-PGPUB; USPAT	OR	OFF	2005/11/16 07:51
S10	0	S9 and (mycoplasma same lipopeptide)	US-PGPUB; USPAT	OR	OFF	2005/11/16 07:51
S11	2	S8 and (mycoplasma same lipopeptide)	US-PGPUB; USPAT	OR	OFF	2005/11/16 07:53
S12	1	S8 and (mycoplasma same lipoprotein)	US-PGPUB; USPAT	OR	OFF	2005/11/16 07:53
S13	90	tlr6	US-PGPUB; USPAT	OR	OFF	2005/11/16 07:54
S14	3	tlr6 and S8	US-PGPUB; USPAT	OR	OFF	2005/11/16 07:54
S15	1	S14 not S11	US-PGPUB; USPAT	OR	OFF	2005/11/16 07:54
S16	1288	800/18.ccls.	US-PGPUB; USPAT	OR	OFF	2006/11/09 14:36
S17	4	S16 and tlr1	US-PGPUB; USPAT	OR	OFF	2006/11/09 14:36
S18	2275	800/8.ccls. or 800/18.ccls.	US-PGPUB; USPAT	OR	OFF	2006/11/09 14:42
S19	1465	S18 and (mycoplasma lipo\$)	US-PGPUB; USPAT	OR	OFF	2006/11/09 14:42
S20	1	S18 and (mycoplasma adj lipo\$)	US-PGPUB; USPAT	OR	OFF	2006/11/09 14:42

## EAST Search History

S21	1	S18 and (mycobacterial adj lipo\$)	US-PGPUB; USPAT	OR	OFF	2006/11/09 14:43
S22	1	"7036449".pn.	US-PGPUB; USPAT	OR	OFF	2006/11/09 21:24
S23	1131	800/8.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/03/10 08:17
S24	0	S23 and (mycoplasma same lipopeptide)	US-PGPUB; USPAT	OR	OFF	2007/03/10 08:17
S25	0	S23 and (mycoplasma same lipoprotein)	US-PGPUB; USPAT	OR	OFF	2007/03/10 08:17
S26	149	tlr6	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/03/10 08:17
S27	5	S26 and 800/18.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/03/10 08:23
S28	2	S26 and 800/8.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/03/10 08:24
S29	2	S26 and 800/3.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/03/10 08:24
S30	13	S26 and 435/325.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/03/10 08:24
S31	6986	hori.in.	US-PGPUB; USPAT; DERWENT	OR	OFF	2007/05/08 10:17
S32	8	S31 and (stem adj cell)	US-PGPUB; USPAT; DERWENT	OR	OFF	2007/05/08 21:28
S33	3	"165305".pn.	US-PGPUB; USPAT; DERWENT	OR	OFF	2007/05/08 21:45
S34	1	hori.in. and endoderm	US-PGPUB; USPAT; DERWENT	OR	OFF	2007/05/08 21:45
S35	1155	800/8.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/09/26 12:38

## EAST Search History

S36	0	S35 and (mycoplasma same lipopeptide)	US-PGPUB; USPAT	OR	OFF	2007/09/26 12:37
S37	0	S35 and (mycoplasma same lipoprotein)	US-PGPUB; USPAT	OR	OFF	2007/09/26 12:37
S38	1	S35 and tlr1	US-PGPUB; USPAT	OR	OFF	2007/09/26 12:37
S39	0	S35 and tlr-1	US-PGPUB; USPAT	OR	OFF	2007/09/26 12:37
S40	1496	800/18.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/09/26 12:38
S41	0	S40 and tlr-1	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/09/26 12:38
S42	6	S40 and tlr1	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/09/26 12:38



Mouse Genome Informatics

[MGI Home](#) [Help](#)

Search for

in these sections

All sections	▲
Gene symbols/names	
Accession IDs	
Phenotype/Human Disease	
Gene Expression	
Gene Ontology	
Anatomical Dictionary	
Phenotype Ontology (MP)	▼

Advanced search for... **Search Categories**[All Search Tools](#)[MGI Batch Query](#) NEW[Genes/Markers](#)[Phenotypes/Alleles](#)[Strains/Polymorphisms](#)[Expression](#)[Sequences](#)[Comparative Maps/Data](#)[Mouse Maps/Data](#)[Mouse Tumor Biology](#)[Probes/Clones](#)[References](#)[Vocabulary Browsers](#)[Anatomical Dictionary](#)[Gene Ontology \(GO\)](#)[Human Disease \(OMIM\)](#)[Phenotype Ontology \(MP\)](#)[Protein Superfamily](#)[MouseBLAST](#)[Mouse GBrowse](#)[IMSR \(Find Mice\)](#)**Tools and Links**[Citing These Resources](#)[Funding Information](#)[Warranty Disclaimer](#)[& Copyright Notice](#)[Send questions and](#)[comments to User Support.](#)**Phenotypic Allele Detail**

Your Input Welcome

Allele Symbol: **Tlr1<sup>tm1Flv</sup>**

Name: targeted mutation 1, Richard A Flavell

ID: MGI:3526882

Synonyms TLR1<sup>-</sup>

Allele details

Allele Type: Targeted (knock-out)

Strain of Origin: 129S1/Sv-p<sup>+</sup> Tyr<sup>+</sup> Kitl<sup>+</sup>

ES Cell Line: W9.5/W95

Mutation: Disruption caused by insertion of vector

The entire gene was replaced by a neomycin resistance cassette. Rt-PCR confirmed the absence of transcription. (J:95726)

International Mouse Strain Resource: ([Search for IMSR strains](#) with Tlr1 mutations)References and Additional Notes: ([See Below](#))

Gene information

Symbol: **Tlr1**

Name: toll-like receptor 1

Chromosome: 5

Genetic Position: 37.0 cM

Genome Coordinates: Chr5:65203969-65211834

bp, - strand (From NCBI annotation of NCBI Build 36)

Human Ortholog: [TLR1](#)

Phenotypes

Phenotypic details for all genotypes that include at least one Tlr1<sup>tm1Flv</sup> allele**Allelic Composition Genetic Background**[Tlr1<sup>tm1Flv</sup>/Tlr1<sup>tm1Flv</sup>](#) involves: 129S1/Sv**immune system**[decreased immunoglobulin concentration](#) (J:95726)

- lower antibody titers are seen in response to immunization with lipidated OspA (Lyme disease vaccine) alone however titers are similar to wild type when immunized with OspA plus complete Freund's adjuvant

[abnormal macrophage physiology](#) (J:95726)

- IL-6 (but not IL-10) production after stimulation with OspA or peptoglycan is reduced compared to wild type

[increased susceptibility to parasitic infection](#) (J:95726)

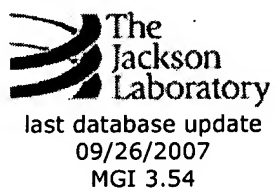
- the spirochete burden is significantly increased 2 weeks after infection with *Borrelia burgdorferi*, however antibody production, degree of arthritis and carditis, and time to disease resolution are the same as in wild type mice

References

(Original) J:95726 Alexopoulou L *et al.*, "Hyporesponsiveness to vaccination with *Borrelia burgdorferi* OspA in humans and in TLR1- and TLR2-deficient mice." *Nat Med* 2002 Aug;8(8):878-84

All references(1)

(a) at not(b)  
overcome by  
SR priority  
June 2002





Mouse Genome Informatics  
[MGI Home](#) [Help](#)

### Search for

in these sections

All sections
Gene symbols/names
Accession IDs
Phenotype/Human Disease
Gene Expression
Gene Ontology
Anatomical Dictionary
Phenotype Ontology (MP)

### Search Categories

[All Search Tools](#)  
[MGI Batch Query](#) NEW  
[Genes/Markers](#)  
[Phenotypes/Alleles](#)  
[Strains/Polymorphisms](#)  
[Expression](#)  
[Sequences](#)  
[Comparative Maps/Data](#)  
[Mouse Maps/Data](#)  
[Mouse Tumor Biology](#)  
[Probes/Clones](#)  
[References](#)  
[Vocabulary Browsers](#)  
[Anatomical Dictionary](#)  
[Gene Ontology \(GO\)](#)  
[Human Disease \(OMIM\)](#)  
[Phenotype Ontology \(MP\)](#)  
[Protein Superfamily](#)

[MouseBLAST](#)

[Mouse GBrowse](#)

[IMSR \(Find Mice\)](#)

### Tools and Links

[Citing These Resources](#)  
[Funding Information](#)  
[Warranty Disclaimer](#)  
[& Copyright Notice](#)  
 Send questions and  
 comments to [User Support](#).



## Phenotypic Allele Detail

Your Input Welcome

**Allele** **Symbol:** **Tlr1<sup>tm1Aki</sup>**  
**Name:** targeted mutation 1, Shizuo Akira  
**ID:** MGI:3609369

**Synonyms** Tlr1<sup>-</sup>

**Allele details** **Allele Type:** Targeted (knock-out)  
**Strain of Origin:** 129P2/OlaHsd  
**ES Cell Line:** E14.1

**Mutation:** Disruption caused by insertion of vector  
 A neomycin resistance gene replaced a portion of an  
 exon containing amino acids 575-795 of the locus,  
 sequence encoding the transmembrane and  
 cytoplasmic regions of the protein. Northern blot  
 failed to detect transcript in mutants. ([J:103395](#))

**International Mouse Strain Resource:** ([Search for  
 IMSR strains with Tlr1 mutations](#))

**References and Additional Notes:** ([See Below](#))

**Gene information** **Symbol:** [Tlr1](#)  
**Name:** toll-like receptor 1  
**Chromosome:** 5

**Genetic Position:** 37.0 cM  
**Genome Coordinates:** Chr5:65203969-65211834  
 bp, - strand (From NCBI annotation of NCBI Build 36)  
**Human Ortholog:** [TLR1](#)

**Phenotypes** **Phenotypic details for all genotypes that include at  
 least one Tlr1<sup>tm1Aki</sup> allele**

**Allelic Composition** **Genetic Background**

[Tlr1<sup>tm1Aki</sup>](#)/[Tlr1<sup>tm1Aki</sup>](#) involves: 129P2/OlaHsd \* C57BL/6

### immune system

**abnormal cytokine physiology** ([J:103395](#))

- macrophages show impaired proinflammatory cytokine production in response to the native mycobacterial 19-kDa lipoprotein and a synthetic triacylated lipopeptide, but respond normally to diacylated lipoprotein

**abnormal TNF physiology** ([J:103395](#))

- macrophages show impaired TNF-alpha production in response to the native mycobacterial 19-kDa lipoprotein and a synthetic triacylated lipopeptide, but respond normally to diacylated lipoprotein

**abnormal IL-6 physiology** ([J:103395](#))

- macrophages show impaired IL-6 production in response to the native mycobacterial 19-kDa lipoprotein and a synthetic triacylated lipopeptide, but respond normally to diacylated lipoprotein

**References** (Original) [J:103395](#) Takeuchi O *et al.*, "Cutting edge: role of Toll-like receptor 1 in mediating immune response to microbial lipoproteins." *J Immunol* 2002 Jul 1;[169](#)(1):10-4

All references([7](#))

